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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 09/977,929 | 10/15/2001 | Sharon L. Book | 41482/29227 | 9089 |

21888 7590 06/02/2005

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EXAMINER

ANTHONY, JOSEPH DAVID

| ART UNIT | PAPER NUMBER |
|----------|--------------|
|----------|--------------|

1714

DATE MAILED: 06/02/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | | |
|------------------------------|--------------------------------------|------------------------------------|--|
| Office Action Summary | Application No. 09/977,929 | Applicant(s) BOOK ET AL. | |
| | Examiner Joseph D. Anthony | Art Unit 1714 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 April 2005.
 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-48 is/are pending in the application.
 4a) Of the above claim(s) 9-18 and 27-48 is/are withdrawn from consideration.
 5) ☐ Claim(s) _____ is/are allowed.
 6) ☒ Claim(s) 1-8 and 19-26 is/are rejected.
 7) ☐ Claim(s) _____ is/are objected to.
 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☐ All b) ☐ Some * c) ☐ None of:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
 * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1 and 19-20 are rejected under 35 U.S.C. 102(b) as being directly anticipated by Metler et al. U.S. Patent Number 3,246,692.

Metler et al teach a process for preventing the unintentional expulsion of formation fluids from a subterranean formation containing the same at pressures greater than atmospheric into a well penetrating such formation. The process comprises the steps of introducing through the well to a position adjacent the formation containing formation fluids, an aqueous liquid having a density sufficient to provide a hydrostatic pressure on said formation of a magnitude sufficient to prevent expulsion of said formation fluids therefrom into said well, **said aqueous liquid comprising a mixture of water and a mixture of at least two solutes selected from the group consisting of the mono-, di-, and trisodium and the mono-, di-, and tripotassium salts of orthophosphoric acid**, the amounts of the solutes selected being such as to provide said aqueous liquid with a density greater than the densities of solutions of the selected solutes individually at the same conditions, and maintaining said aqueous liquid within said well adjacent said formation, see claim 1. Applicants' claims are deemed to

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be directly anticipated over the patent's teaching set forth in column 3, lines 40 to column 5, line 16.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 2-8 and 21-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Metler et al. U.S. Patent Number 3,246,692.

Metler et al. has been described above and differs from applicant's claimed invention in the following ways: 1) there is no direct teaching (i.e. by way of an example) to a mixed high-density salt solution that actually comprises an acid such as phosphoric acid or citric acid, and 2) there is no direct teaching (i.e. by way of an example) to a mixed high-density salt solution that actually comprises applicants' particularly claimed phosphate salt species within applicants' particular claimed concentration ranges.

It would have been obvious to one having ordinary skill in the art to use the broad disclosure of Metler et al at column 5, lines 25-54 as motivation to actually make Metler et al's mixed salt solutions by reacting orthophosphoric acid with sodium and/or potassium hydroxide. Such a reaction would result in a high-

density salt solution that would actually comprise phosphoric acid and sodium and/or potassium phosphate salts. In the alternative, it would have been obvious to add citric acid to Metler et al's high-density salt solutions since citric acid is a known corrosion inhibitor, see column 5, lines 53-54 of Metler et al..

It would also have been obvious to one having ordinary skill in the art to use the broad disclosure of Metler et al as strong motivation to make high-density salt solutions that actually comprise applicants' particularly claimed phosphate salt species within applicants' particular claimed concentration ranges. In any case, applicant has set forth no showing of any superior and unexpected results that may result from applicants' particularly claimed high-density phosphate salt solutions.

Prior-Art Cited But Not Applied

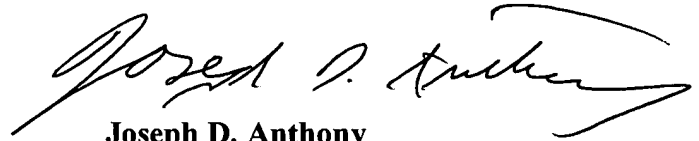
5. Any prior-art reference which is cited on FORM PTO-892 but not applied, is cited only to show the general state of the prior-art at the time of applicant's invention.

Examiner Information

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Joseph D. Anthony whose telephone number is (571) 272-1117. If attempts to reach the examiner are unsuccessful, the examiner's supervisor, Vasu Jagannathan, can be reached on (571) 272-1119. The centralized FAX machine number is (703) 872-9306. All other papers received by FAX will be

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treated as Official communications and cannot be immediately handled by the
Examiner.

A handwritten signature in black ink, appearing to read "Joseph D. Anthony", with a stylized flourish at the end.

Joseph D. Anthony
Primary Patent Examiner
Art Unit 1714

5/31/05